ABSTRACT:

AUTHORS AND SPEAKERS:

Julie Coco, MPH

Epidemiologist

Division of Disease Surveillance

Julie.Coco@Maine.Gov

207-287-7395

Max Reinhold, MPH

Testing Coordinator

HIV, STD, and Viral Hepatitis Program

Max.Reinhold@Maine.Gov

(207) 287-5194

TITLE: Collaboration of STD surveillance and prevention to reduce the number of syphilis and gonorrhea cases in Maine

Background: Syphilis and gonorrhea are sexually transmitted diseases (STD's) that cause significant morbidity in the United States. There has been a substantial increase nationwide in gonorrhea and syphilis. From 2013-2017 there was a 67% increase in gonorrhea, and a 76% increase in syphilis, according to Centers for Disease Control and Prevention (CDC) (Center for Disease Control and Prevention 2018[1]). The Maine CDC analyzed statewide surveillance data to determine if there has been a similar increase in cases of gonorrhea and syphilis in Maine, and to determine if there are certain groups of people that are disproportionately affected by these diseases. The surveillance data analysis is then used to inform targeted and evidence based prevention programs to decrease the burden of disease in Maine.

Methods: The Maine CDC collects disease surveillance data from disease reports and positive laboratory results submitted by clinical providers and laboratories throughout the state. The HIV/STD epidemiologist then prepares the data for national reporting, public awareness, and analyzes the data for disease trends. Prevention staff with the Maine CDC provide public health outreach to clinical providers, the public, and community based organizations, and funds testing for individuals at increased risk for STD's. Disease Intervention Specialists (DIS) collect data from individuals diagnosed with an STD, ensure they receive the proper treatment, and help to notify their partners. The Prevention Specialists, DIS staff and HIV/STD Epidemiologist meet regularly to discuss trends. The prevention program used surveillance data to guide public health outreach to communities disproportionately affected by STD's. This outreach effort included conversations with clinical providers, social media outreach, presentations to local public health agencies, a large-scale mailing with public health information, and community

based STD testing. The Maine CDC released a Health Alert on September 5th, 2018 to educate the public and providers about statewide increases in STD's

Results: In 2017, there was a thirty percent increase in gonorrhea and a seventy-seven percent increase in the number of cases of syphilis in Maine as compared to 2016. In 2017, Cumberland and Androscoggin County accounted for nearly sixty percent of all gonorrhea cases. In 2017, rates of gonorrhea in Maine showed that Blacks/African Americans were nearly twelve times as likely to be diagnosed with gonorrhea than their White counterparts (3.99 per 1,000 compared to 0.34 per 1,000). Androscoggin County had a one hundred and seventeen percent increase of gonorrhea cases from 2016-2017 (75 compared to 163). The age groups that are most affected by gonorrhea in Maine are those that are between the ages of twenty and twenty-nine (45% in 2017, and currently 48% of cases). Over sixty percent of gonorrhea cases in 2017 and 2018 are male. Cumberland County accounted for thirty-six percent of all Maine syphilis cases. Cumberland County saw a sixteen percent increase in infectious syphilis from 2016-2017 (25 compared to 29 cases). Over forty percent of syphilis cases in Maine identified as men who have sex with men (MSM). Twenty-five percent of syphilis cases were also HIV positive. Thirty-six percent of Maine's infectious syphilis cases were between the ages of twenty and twenty-nine, and twenty-four percent of cases were over the age of fifty. Through the end of August 2018, Maine saw counts of gonorrhea that are two and a half times the five-year median (452 compared to 180) and counts of syphilis that are nearly three times the five-year median (63 compared to 23).

Conclusion: There has been a substantial increase in gonorrhea and syphilis infections in Maine. Surveillance data demonstrates that some communities in Maine are disproportionately affected. The surveillance data has been used in targeted and evidence based prevention programs to decrease the burden of disease in Maine. The surveillance program will continue to analyze data to determine the effectiveness of the prevention interventions, and whether to apply new strategies or to allocate additional resources to different communities.